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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/798,926	03/11/2004	Jeffrey C. Smolinske	CE11925R	6906
22917	7590	04/21/2005	EXAMINER	
MOTOROLA, INC. 1303 EAST ALGONQUIN ROAD IL01/3RD SCHAUMBURG, IL 60196			PATEL, JAY P	
			ART UNIT	PAPER NUMBER
			2666	

DATE MAILED: 04/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/798,926

Applicant(s)

SMOLINSKE ET AL.

Examiner

Jay P. Patel

Art Unit

2666

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6, 10-13 and 18 is/are rejected.
- 7) ☒ Claim(s) 4, 5, 7-9 and 14-17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 12-18 are objected to because of the following informalities:

The above-mentioned claims depend either directly or indirectly on independent claim 11, which claims a system; therefore, the above-mentioned claims cannot be further limiting of a method as they are written. The above-mentioned claims are treated as further limiting a system as oppose to a method in this office action.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-3, 6, 10, 11-13 and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Galyas (US Patent 6687226 B1)
4. In regards to claims 1 and 11, Galyas teaches all the limitations of claims including a method for dynamic backhaul resource management in a wireless communication system comprising:

determining a link capacity of a backhaul link for conveying data to be transmitted during a transmit period. Galyas discloses that his IP based BSS operates to address a situation with an IP network where a terrestrial link is overloaded and discloses different embodiments to alleviate the situation (see figure 1, system 100, IP network 110 and link 112; column 3, lines 1-4). Galyas further discloses that the IP gateway includes at least one PCU; the PCU functions to prioritize transmission and handles Radio Link Control to control link adaptations and logical signaling channels (see figure 1, IP gateway 120 and PCU 126; column 3, lines 24-33). This disclosure anticipates that the system (which includes the PCU) can measure the capacity of the link since it detects the overload situation, which would only occur if the capacity of the link has been exceeded.

In regards to determining a data traffic level which is an amount of data that will need to be conveyed by the backhaul link for transmission during the transmit period, assuming that wireless unit coding schemes are maximized according to present wireless channel conditions, Galyas teaches in an embodiment that the BTS includes an end-point having a buffer located within the application. The buffer monitors the delay in passing packet-based calls through one of the terrestrial links in the IP network. When the delay measured exceeds a predetermined threshold, then the transmission rate of one or more of the calls is reduced (see figure 6, buffer 614 and BTS 140; column 6 lines 28-41).

In regards to when the data traffic level is greater than the link capacity, reducing a coding scheme of at least one wireless unit for the transmit period in order to reduce

the data traffic level to fit within the data capacity of the backhaul link, Galyas teaches that the PCU detects the overload situation and commands the mobile terminal that wants to send data to use a stronger channel coding than what is needed to reduce the payload sent over the radio interface and the terrestrial link. The effect is a reduced bit rate for the speech coder resulting in a lower speech quality (see column 7 lines 19-27).

5. In regards to claims 2 and 12, Galyas teaches that the buffer operates to monitor the delay in passing packet-based calls through one terrestrial link. It is inherent from this disclosure that the transmit period comprises a period in which a plurality of air interface timeslot are transmitted concurrently since the delay is monitored with regards to multiple packet-based calls which require multiple timeslots (see column 6 lines 30-32).

6. In regards to claims 3 and 13, Galyas discloses a terrestrial link that is a link between the BTS and an IP Gateway of which the PCU is a part. This disclosure anticipates a bearer link between the PCU and the BTS (see figure 1, BTS 140, link 112, IP Gateway 120 and PCU 126).

7. In regards to claim 6, Galyas reveals that to downgrade the transmission rate, the IP Gateway forwards a reduce bandwidth command signal to the BTS 140 (see figure 6 command signal 622; column 6 lines 46-48). In further regards, Galyas also reveals that the BTS informs the PCU of the overload situation and the PCU could reduce the bandwidth itself by using a stronger channel-coding scheme (see column 7 lines 10-12). This disclosure anticipates changing the coding scheme by reducing the data rate of at least one of the mobile units during the transmit period.

8. In regards to claims 10 and 18, Galyas reveals that the PCU is also responsible to prioritize which one of the two users that send a communication at the same time will be given priority and that the threshold delay value can be calculated based on QOS requirements which are used to set priorities (see column 3 lines 28-30, column 6 lines 38-41 and column 7 lines 43-50). This disclosure anticipates having at least one wireless unit with the lowest QOS priority compared to the other wireless units.

***Allowable Subject Matter***

9. Claims 4-5, 7-9 and 14-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jay P. Patel whose telephone number is (571) 272-3086. The examiner can normally be reached on M-F 9:00 am - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S Rao can be reached on (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2666

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

jpp 4/15/2005  
Jay P. Patel  
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Art Unit 2666

*Seema S. Rao*  
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